

REMARKS

This paper is filed in response to the Office Action mailed on May 12, 2004, rejecting Claims 1-3 and withdrawing Claims 4-17. Claims 1-17 are currently pending. Claim 17 has been canceled. Claims 18-29 are new. Consideration of Claims 1-16 and 18-29 is respectfully requested.

Attorney Docket No.

Please note that the attorney docket number for the above-referenced patent application has changed to FBRI118912.

Claim Objections

Claims 4-16 are objected to under 37 C.F.R. § 1.75(c) as being in improper form because the dependency of these claims is based from the multiple dependent Claim 3. Claims 3-9, 11-13 and 16 have been amended to correct the claim dependency. Applicants respectfully request the Examiner withdraw the objection to these claims.

The Rejection of Claim 17 Under 35 U.S.C. § 112, Second Paragraph

Claim 17 is rejected under 35 U.S.C. § 112, second paragraph as being indefinite. Applicants have canceled Claim 17 without prejudice, accordingly the withdrawal of the rejection of Claim 17 under 35 U.S.C. § 112, second paragraph, is respectfully requested.

The Rejection of Claims 1-3 Under 35 U.S.C. § 103(a)

Claims 1-3 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Pogue (U.S. Patent No. 5,144,667) and Andreou (U.S. Patent No. 5,712,626). Applicants respectfully disagree.

A *prima facie* case of obviousness requires a suggestion or motivation either in the prior art references or in the knowledge that is generally available to modify a reference or to combine

LAW OFFICES OF
CHRISTENSEN O'CONNOR JOHNSON KINDNESS^{LLC}
1420 Fifth Avenue
Suite 2800
Seattle, Washington 98101
206.682.8100

references, a reasonable expectation of success, and that each and every element be found in the prior art references.

Claim 1 recites that a portable electronic device respond to a trigger signal by transmitting a response signal, wherein the response signal comprises one or more radio frequency signals of a frequency and duration determined by an algorithm together with a unique number stored in the device and with reference to a random number contained in the trigger signal.

The Pogue reference describes an encryption system in a remote unit that uses a secret key S together with an algorithm. A base unit transmits a private key Q and a random number R. The remote unit uses the secret key S to decrypt the private key Q to produce a result P. The remote unit then uses P to encrypt the random number R to give the product $X = P(R)$ which is transmitted to the base unit. The base unit then compares its copy of P to encrypt R and matches the resulting X's.

This use of a secret key S in the remote unit together with the transmitted private key Q and a random number R results in a transmission from the remote unit to the base unit of a number X which is matched, at the base unit, with the number produced by the base unit using its copy of P to encrypt the random number R.

The Pogue reference does not describe or remotely suggest a portable electronic device transmitting a signal in response to a trigger signal, wherein the signal comprises one or more radio frequency signals of a frequency and duration determined by an algorithm together with a unique number stored in the device and with reference to a random number contained in the trigger signal. In the Pogue reference, the transmission between the remote unit and the base unit is of an encrypted number only.

Appreciating the deficiencies with the primary reference, the Examiner attempts to modify and/or combine the Pogue and Andreou references. Such combination, at best, merely renders the Pogue invention unsatisfactory for its intended purpose and so changes the principle of operation of the Pogue invention as to completely lose all semblance of the original invention.

The Examiner states, "it would have been obvious to one of ordinary skill in the art at the time of the invention to have changed the frequency of the response signal in Pogue as a function of the frequency in order to improve security as suggested by Andreou."

The Examiner states that the frequency of the response signal transmitted by the remote unit of Pogue can be changed. However, there is no disclosure in the Pogue reference of the base unit even being capable of tuning to the appropriate frequency on the basis of the generated random number. Without this feature, the base unit will be unable to receive or recognize the changed response signal. Such an inability to recognize the response signal would completely render the Pogue invention unsatisfactory for its intended purpose as a security measure.

The Examiner states that the Andreou reference "uses a random number as input to an algorithm to change the frequency of the reply or access signal." Col. 13, lines 30-55. The Andreou reference is directed to a different security system to that described in the Pogue reference or that described in the present application. The Andreou reference is directed to a locking mechanism for a door wherein a remote control transmits a coded signal to an electric door lock. In the Andreou system, there is no transmission of a trigger signal by the door lock that contains a random number for use by the "hand-held controller" (HHC). The HHC is manually actuated by a button to generate a transmission signal.

The coded signals by the HHC of Andreou are comprised of two separate signals which are transmitted in segments interleaved with one another. The first signal includes an entrance code, while the second provides information concerning the frequency over which the next

segments will be transmitted. The electronic door lock (EDL) processor uses the second signal information to tune the receiver. Apart from the fact that both the Pogue and Andreou references relate to forms of security systems, the inventions respectively disclosed are unrelated. The proposed modification of Pogue based on Andreou offered by the Examiner is so vague as to be meaningless. Reliance on changing the frequency of the response signal in Pogue as the security measure rather than on encryption is unnecessary and so alters the Pogue invention as to completely change the principle of its operation.

Furthermore, the system described in Andreou is not directly applicable to the invention as defined by Claim 1 as Andreou does not disclose changing a carrier frequency using an algorithm together with a unique number stored in the portable device and with reference to a random number contained in a trigger signal transmitted by the base unit. The frequency change in Andreou is based on the portable unit generating a random number and using a look-up table to determine a frequency and frequency code. Further, applicants submit that the system described by Andreou, in particular that disclosed in column 13, lines 30-55, is inoperative in that, if the HHC is actuated out of range of the EDL, the frequency of the next transmission will be changed but the EDL will not have received the new code and therefore will not receive the next transmitted signal.

Consequently, applicants submit there is no suggestion or motivation to combine the disclosures of the Andreou reference with the Pogue reference in an endeavor to develop a combination which may be similar to that of the invention defined by Claim 1, and in any event, the combination does not disclose all features of the present invention as defined in Claim 1.

The Pogue reference and the Andreou reference rely on entirely different systems for security. Substitution of the security system in Pogue for the system from Andreou significantly alters the principal of operation of the Pogue reference. The Pogue reference relies on

LAW OFFICES OF
CHRISTENSEN O'CONNOR JOHNSON KINDNESS^{LLC}
1420 Fifth Avenue
Suite 2800
Seattle, Washington 98101
206.682.8100

cryptographic techniques, whereas the Andreou reference relies on sensing a specific sequence of signals. The two systems are incompatible with each other. Furthermore, changing the encryption/decryption system of Pogue for the signal-sensing system of Andreou is tantamount to a complete revision of the Pogue invention.

If the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 U.S.P.Q. 1125 (Fed. Cir. 1984).

If the proposed modification or combination of the prior art would change the principal of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 U.S.P.Q. 349 (C.C.P.A. 1959); *see also*, MPEP § 2143.01, pp. 2100-124 to 2100-125.

Accordingly, for all the reasons given above, applicants submit that Claim 1 is allowable in view of the Pogue reference alone or in combination with the Andreou reference. Claims 1-16 are either directly or indirectly dependent from Claim 1. Accordingly, these claims are allowable as well.

New Claims 18-29

Independent Claims 18 and Claim 20 are new and recite the elements discussed above that are not described or remotely suggested in the Pogue reference either alone or in combination with the Andreou reference, accordingly, Claims 18 and 20 are allowable. Claims 19 and 21-29 that are dependent from either of Claim 18 or Claim 20 are allowable for this reason alone.

CONCLUSION

In view of the foregoing amendments and remarks, applicants submit that Claims 1-16, and 18-29 are in condition for allowance. If the Examiner has any further questions that may be expeditiously resolved with a telephone call, the Examiner is invited to contact the applicants' attorney at the number provided below.

Respectfully submitted,

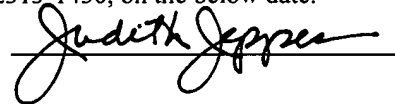
CHRISTENSEN O'CONNOR
JOHNSON KINDNESS^{PLLC}



Laura A. Cruz
Registration No. 46,649
Direct Dial No. 206.695.1725

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LAW OFFICES OF
CHRISTENSEN O'CONNOR JOHNSON KINDNESS^{PLLC}
1420 Fifth Avenue
Suite 2800
Seattle, Washington 98101
206.682.8100